

Fact Sheet



For Final Minor Modification Permitting Action Under 45CSR30 and Title V of the Clean Air Act

This Fact Sheet serves to address the changes specific to this Minor Modification, and shall be considered a supplement to the Fact Sheet corresponding with the Title V operating permit issued on January 22, 2013.

Permit Number: **R30-08300025-2013**

Application Received: **October 5, 2015**

Plant Identification Number: **03-54-083-00025**

Permittee: **Armstrong Hardwood Flooring Company**

Facility Name: **Beverly Mill**

Mailing Address: **P.O. Box 160, Beverly, WV 26253**

Permit Action Number: *MM03* Revised: *March 30, 2016*

Physical Location: Beverly, Randolph County, West Virginia
UTM Coordinates: 597.41 km Easting • 4,296.88 km Northing • Zone 17
Directions: From Charleston take I-79 North to exit 99, proceed east on US Route 33 to Elkins. From Elkins take US Route 250 South. The facility is located approximately 1.6 miles south of Beverly in Randolph County.

Facility Description

The Beverly facility manufactures finished and unfinished hardwood flooring under Standard Industrial Classification (SIC) code 2426. Green lumber is purchased and stacked in the Mill Yard to facilitate air drying of the lumber. The lumber is then further dried in the steam heated pre-dryer and/or one of 38 lumber kilns. Kiln-dried lumber is transferred by one of three lumber tilts to the Mill rough end saws. The rough end saws cut the lumber into strips for transfer to one of six lines of knot saws, side matchers, and end matchers. The unfinished wood flooring is graded, stacked and either stored or transferred to one of two finishing lines. Finished hardwood flooring is graded and packaged for shipment to mill customers.

Boilers: The facility currently operates two wood fuel-fired boilers (each 48.8 MMBTU/hr) to provide steam for the drying kilns, the stain curing ovens, and the building heating system. A third propane-fired boiler (96.7 MMBTU/hr) is used as backup for periods of shutdown of the wood fired boilers. Each of the wood-fired boilers (001-01 & 001-02) is equipped with 7,600 square feet of heat surface for generating steam from the combustion of wood waste. Sawdust and wood waste from the mill operations are collected in silos and burned as fuel. These boilers are designed to generate a maximum of 37,110 pounds of steam

by burning a maximum of 6,445 pounds per hour of wood waste fuel. An electrostatic precipitator controls particulate matter emissions from the two wood fired boilers.

A 96.7 MMBTU/hr Propane gas fired boiler (001-03) and associated propane unloading station was installed in 2007. This boiler is limited to 400 hours of operation per year.

Flooring Mill: The flooring mill consists of seven (7) lines where cutting, planing, and edging operations are performed to convert kiln-dried hardwood lumber into unfinished hardwood flooring. The kiln-dried lumber is fed to the rough end for preliminary sorting, cutting, and sizing and then to one of the six processing lines. The Flooring Mill also includes several hogs, three hogged fuel silos, and two truck loadouts for hogged fuel. The flooring mill is designed to convert 163,800,000 board-feet of kiln-dried lumber into 109,200,000 square feet of unfinished hardwood flooring per year. Particulate emissions are controlled by seven (7) baghouses (No. 's 2 through 8).

Finishing Lines: Unfinished hardwood flooring is supplied to two (2) Finishing Lines for sanding, staining, sealing, application of topcoat, and packaging for shipment. Each line contains a stain rollcoater unit with stain applicators and a two-zone, natural gas-fired high velocity stain cure oven; a sealer rollcoater unit with hooded roll applicators and UV cure oven; a hooded topcoat rollcoater and UV cure oven; and a two-stage hooded topcoat rollcoater. Each finishing line is designed to produce 59,600,000 square feet of finished hardwood flooring per year. Particulate emissions from the finishing lines are controlled by Baghouse No. 1.

Yard Operations: Yard operations consist of receiving green lumber to the pre-dryer and/or lumber kilns, and transfer of dried lumber from the lumber kilns to dry storage. The mill operates one steam-heated pre-dryer and 38 steam-heated lumber kilns to dry green lumber for further processing in the mill and finishing lines. The pre-dryer is designed for 1,600,000 board-feet per charge (charge cycle is approximately 35 days). Each of the 38 kilns is designed for 102,000 board-feet per charge (charge cycle normally averages 15 days). Rolling stock transport of lumber results in the generation of fugitive particulate matter emissions.

This minor modification (MM03) is for the repurposing of some existing process equipment and installation of several sanders and saws to allow for wire brushed visually distressed products of varied widths. The changes will impact the inlet air flows to Baghouse Nos. 2, 5 and 7 but no physical changes will take place that will impact the control efficiencies from these baghouses. A new hog will be installed, which will exhaust to Cyclone No. 4 and Baghouse No. 5, utilizing the same ductwork and air flows as an identical (Jacobsen) hog. This addition will not impact the design or capacities of either the cyclone or baghouse. The PUMA conveying system will be expanded from one line to two lines and will increase the maximum hourly throughput capacity for the Visually Distressed Flooring Line.

Emissions Summary

The proposed minor modification (MM03) will result in a change in PM and PM₁₀ emissions for Nos. 2, 3, 5, and 7 Baghouses.

Emission Unit	Emission Unit Point ID	Maximum Emission Rates			
		PM		PM10	
No. 2 Baghouse	S04	lb/hr	TPY	lb/hr	TPY
		-0.03	-0.13	--	-0.02
No. 3 Baghouse	S05	+0.21	+0.91	+0.04	+0.18
No. 5 Baghouse	S07	-0.05	-0.25	-0.01	-0.05
No. 7 Baghouse	S10	-0.13	-0.59	-0.02	-0.12

Title V Program Applicability Basis

With the proposed changes associated with this modification, this facility maintains the potential to emit over 100 tons per year of carbon monoxide (CO), nitrogen oxides (NO_x), and volatile organic compounds (VOCs). Due to this facility's potential to emit over 100 tons per year of criteria pollutants, Armstrong Hardwood Flooring Company is required to have an operating permit pursuant to Title V of the Federal Clean Air Act as amended and 45CSR30.

Legal and Factual Basis for Permit Conditions

The State and Federally-enforceable conditions of the Title V Operating Permits are based upon the requirements of the State of West Virginia Operating Permit Rule 45CSR30 for the purposes of Title V of the Federal Clean Air Act and the underlying applicable requirements in other state and federal rules.

The modification to this facility has been found to be subject to the following applicable rules:

Federal and State:	45CSR7	Particulate matter from manufacturing source(s).
	45CSR13	Construction permit requirements.
	45CSR30	Operating permit requirement.
State Only:	None	

Each State and Federally-enforceable condition of the Title V Operating Permit references the specific relevant requirements of 45CSR30 or the applicable requirement upon which it is based. Any condition of the Title V permit that is enforceable by the State but is not Federally-enforceable is identified in the Title V permit as such.

The Secretary's authority to require standards under 40 C.F.R. Part 60 (NSPS), 40 C.F.R. Part 61 (NESHAPs), and 40 C.F.R. Part 63 (NESHAPs MACT) is provided in West Virginia Code §§ 22-5-1 *et seq.*, 45CSR16, 45CSR34 and 45CSR30.

Active Permits/Consent Orders

Permit or Consent Order Number	Date of Issuance	Permit Determinations or Amendments That Affect the Permit (<i>if any</i>)
R13-1147R	January 11, 2016	NA

Conditions from this facility's Rule 13 permit(s) governing construction-related specifications and timing requirements will not be included in the Title V Operating Permit but will remain independently enforceable under the applicable Rule 13 permit(s). All other conditions from this facility's Rule 13 permit(s) governing the source's operation and compliance have been incorporated into this Title V permit in accordance with the "General Requirement Comparison Table," which may be downloaded from DAQ's website.

Determinations and Justifications

The minor modification includes the following changes (from R13-1147R) in this permit:

1. In Table 1.1, revised the design capacities of the No.2, No.3, No.5 and No.7 Baghouses based on the correct air flow capacities.
2. In Table 1.1, revised the maximum throughput capacity of the Visually Distressed Flooring Lines to 3,620 ft²/hr.
3. In Table 1.1, revised the throughput rate of 29,500 ft² per 8 hour shift of kiln-dried lumber per flooring mill line (S04-S11) to a daily maximum production rate of 350,000 ft²/day of unfinished hardwood flooring for the flooring mill.

4. In Table 5.1.1, revised the maximum PM and PM₁₀ emission limits for Nos. 2, 3, 5, and 7 Baghouses based on the correction to the design air flow capacities of the baghouses.

Non-Applicability Determinations

The following requirements have been determined not to be applicable to the subject facility due to the following:

None

Request for Variances or Alternatives

None

Insignificant Activities

Insignificant emission unit(s) and activities are identified in the Title V application.

Comment Period

Beginning Date: N/A

Ending Date: N/A

Point of Contact

All written comments should be addressed to the following individual and office:

Beena Modi
West Virginia Department of Environmental Protection
Division of Air Quality
601 57th Street SE
Charleston, WV 25304
Phone: 304/926-0499 ext. 1228 • Fax: 304/926-0478
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Procedure for Requesting Public Hearing

During the public comment period, any interested person may submit written comments on the draft permit and may request a public hearing, if no public hearing has already been scheduled. A request for public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing. The Secretary shall grant such a request for a hearing if he/she concludes that a public hearing is appropriate. Any public hearing shall be held in the general area in which the facility is located.

Response to Comments (Statement of Basis)

None